WO 2004/074491

1

SEQUENCE LISTING						
<110>	SYNGENTA PARTICIPATIONS AG					
<120> COLI	EXPRESSION IN PLANTS OF ANTIBODIES AGAINST ENTEROTOXIGENIC E	SCHERICHIA				
<130>	S 70235/WO					
<150>	US 60/448429					
<151>	2003-02-18					
<160>	PatentIn version 3.1					
<210> <211>	1 399	. –				
	DNA					
	Artificial Sequence					
<220>						
<223>	anti-K99 codon optimised VH					
<400> actagte	1 gagg tgcagctcgt ggagtccggc ggcggcttcg tgaagccggg cggctccctc	60				
aagctc	tect gegeegeete eggetteace tteteegaet actteatgte etggattege	120				
cagacc	ccgg agaagcgcct ggagtgggtc gccaccatca acaacggcgg ctcccacacc	180				
tactgc	tecg acaacgtgaa gggeegette accaeettee gegacaaegt gaagaacaee	240				
ctctac	ctcc agatgtcctc cctcaacttc gaggacaccg ccatgtacta ctgcgcccgc	300				
gcctact	tace gettegaegt gegegeetgg tteteetaet ggggeeaggg caccetegtg	360				
accgtgl	teca eggedaagae caceeegeeg teegtetae .	399				

				L			
<210>	2						
<211>	582	2					
<212>	.DNA						
<213>	Art	ificial Sec	Mence				
٠.							
<220>		•					·
<223>	ant	i K99 Codon	optimised	VL			
<400> agtgac	2 atcc	tecteaceca	gtccccggcc	atcctctcca	tgatcccgcg	ccagcgcgtg	60
tccttc	tect	geegegeete	ccagatcatc	ggcaccacca	tccactggtc	ccagcagcgc	120
accgac	ggct	ccccgcgcct	cctcatccag	tgcgcctccg	agtccatctc	cggcatcccg	180
tecege	ttct	ccggcaccgg	ctccggcacc	gacttcaccc	tcaacttcaa	ctccgtggag	240
tccgag	taca	tcaccgacta	ctactgccag	cagtccaaca	cctggccgac	ctacccgttc	300
ggċggc	ggca	ccaagctcga	gatcaagcgc	gccgacgccg	ccccgaccgt	gtccatcttc	360
ccgccgt	țcct	ccgagcagct	cacctccggc	ggcgcgtccg	tggtgtgctt	cctcaacaac	420
ttctac	ccga	aggacatcaa	cgtgaagtgg	aagatcgacg	gctccgagcg	ccagaacggc	480
gtgctca	aacț	cctggaccga	ccaggactcc	aaggactcca	cctactccat	gtcctccacc	540
ctcacco	ctca	ccaaggacga	gtacgagcgc	cacaactcct	ac	. !	582
<210>	3						
<211>	399						
<212>	DNA			•			
<213>	Mous	se		•			
							•
<400> actagtg	3 Jaag	tgcaactggt	ggagtctggg	ggaggcttcg	tgaagcctgg	agggtccctg	. 60
aaactct	cct	gtgcagcctc	tggattcact	ttcagtgact	atttcatgtc	ttggattcgc	120
cagacto	cgg	aaaagaggct	ggagtgggtc	gcaaccatta	ataatggtgg	tagtcacacc	180
tactgtt	cag	acaatgtgaa	gggacgattt	acaactttca	gagacaatgt	caaaaacacc	240
ctgtacc	ttc	aaatgagcag	tctgaacttt	gaggacacag	ccatgtatta	ctgtgcaaga	300
gcctact	ata	ggttcgacgt	gagggċctgg	ttttcttatt	ggggccaagg	gactctggtc	360
actqtct	cta	cagccaaaac	gacaccccca	tetgtetae			399

				3			
<210>	4						
<211>	330						
<212>	DNA		٠	<u> </u>			
<213>	Mou	se					
							-
<400> actagt	4 gaca	tcttgctgac	tcagtctcca	gccatcctgt	ctatgattcc	aagacaaaga	6
gtcagt	ttct	cctgcagggc	cagtcagatc	attggcacaa	ccatacactg	gtctcagcaa	12
ågaaca	gatg	gttctcctag	gcttctcata	cagtgtgctt	ctgagtctat	ctctgggatc	180
ccttcc	aggt	ttagtggcac	tggatcaggg	acagattīta	ctcttaactt	caacagtgtg	240
gagtct	gaat	atattacaga	ttattactgt	caacaaagta	atacctggcc	aacgtacccg	300
ttcggag	3999	ggaccaagct	cgagataaaa				. 330
			•				
<210>	5			-			
<211>	396				•		
<212>	DNA					• •	
<213>	Arti	ificial Sequ	ience	_		•	
					•		
<220>							
<223>	anti	-K88 Codor	optimised	VH from 17	_44		
400-	_					•	
<400> actagto	5 gacg	tgcagctcgt	ggaġtccggc	ggcggcctcg	tgcagccggg	cggctcccgc	60
aagctct	cct	gcgccgcctc	cggcttcacc	ttctcctcct	tegecatgea	ctgggtgcgc	120
caggcc	ccag	agaagggcct	ggagtgggtg	gcctacatct	cctccggctc	catcaccatc	180
tactac	gccg	acaccgtgaa	gggccgcttc	accgtgtccc	gcgacaaccc	gaagtccacc	240
ctcttc	etec	agatgacctc	cctccgcagc	gaggácaccg	ccatgtacta	ctgcgcccgc	300
gacgact	acg	gcțcctccgg	ctggtacttc	gacgtctggg	gcgctggcac	cacggtgacc	360
gtgtcct	cgg	ccaagaccac	cccgccgtcc	gtctac			396

<210> 6

<211> 336

<212> DNA

<213> Artificial Sequence

<220>	
<223> anti-K88 Codon optimised VL-from 17_44	
<400> 6 actagtgaca tcgtgatgtc ccagtccccg tcctccctcg ccgtgtccgc tggcgagaag	.60
gtcaccatgt cctgcaagtc ctcccagtcc ctcctcaact cccgcacccg caagaactac	120
ctcgcctggt atcagcagaa gccgggccag tccccgaagc tcctcatcta ctgggcctcc	180
accogcgagt coggogtgcc ggaccgcttc accggctccg gctccggcac cgacttcacc	240
cteaccatet ceteegtgca ggeggaggae etegeegtgt actaetgcae ceagteetae	300
aacctcctca ccttcggcgc cggtaccaag ctcgag	336
<210> 7	
<211> 393	
<212> DNA -	
<213> Artificial Sequence	
<220>	
<223> anti-K88 Codon optimised VH from 36_41	
<400> 7 actagtgagg tecagetgea geagtetgga eetgaaetag tgaagaetgg ggetteagtg	60
aagatateet geaaggette tgattaetea eteaetgatt aetaeatgea etgggteaag	120
cagagccatg gagagagcct tgagtggatt ggatatatta atttttacaa tggtgctact	180
aactacaacc agaagttcaa gggcaaggcc acatttactg tagacacatc ctccagcaca	240
gtctacatgc agttcaacag cctgacatct gaagactctg cggtctatta ttgtgtaaga	300
gaagcattac tacggaacta tgctatggac tactggggtc aaggaacctc agtcaccgtc	360
tootcagoca aaacgacaco cocatetgto /tac	393
<210> 8	
<211> 324	•
<212> DNA	

<213> Artificial Sequence

5 <223> anti-K88 Codon optimised VL from 36\_41

<400> 8
actagtgaaa atgtgctcac ccagtctcca gcaatcatgt ctgcatctcc aggggaaaag 60
gtcaccatga cctgcagggc cagctcaagt gtaagttccc gttacttgca ctggtaccag 120
cagaagtcag gtgcctcccc caaactctgg atttatagca catccaactt ggcttctgga 180
gtccctgctc gcttcagtgg cagtgggtct gggacctctt actctctcac aatcagcagt 240
gtggaggctg aagatgctgc cacttattac tgccagcaat acagtggtta cccgtggacg 300
ttcggtggag gcaccaagct cgag

≤210> 9

<211> 408

<212> DNA

<213> Artificial Sequence

<220>

<223> anti-K88 Codon optimised VH from 7\_46

<400> 9
actagtgaag tgaagcttga ggagtctgga ggaggcttgg tgcaacctgg aggatccatg 60
agactctcct gtgttgcctc tggattcact ttcagtaact actggatgaa ctgggtccgc 120
cagtctccag agaaggggct tgagtgggtt gctgaaatta gattgacatc taataatttt 180
gcaacacatt atgcggagtc tgtgaaaggg aggttcacca tctcaagaga tgattccaaa 240
agtagtgtct acctgcaaat gaacaactta agagctgaag acactggcat ttattactgt 300
accaggcctt actacggtgg taggttcttc tactggtact tcgatgtctg gggcgcaggg 360
accacggtca ccgtctcctc aaccaaacg acaccccat ctgtctac 408

<210> 10

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> anti-K88 Codon optimised VL from 7\_46

<400> 10 .
actagtgaaa ttgtgctcac ccagtctcca accaccatgg ctgcatctcc cggggagaag

60

WO 2004/074491

			6			•
atcactatca	cctgcagtgc	cagctcaagt	ataagttcca	attacttgca	ttggtatcag	12
cagaagccag	gattetecce	taaactcttg	atttatagga	catccaatct	ggcttctgga	18
gtcccagttc	gcttcagtgg	cagtgggtct	gggacctctt	actctctcac	aattggcacc	24
atggaggctg	aagatgttgc	cacttactac	tgccagcagg	gtaatagtat	accattcacg	30
ttcggctcgg	ggacaaagct	cgag				32
010 11						
<210> 11						
<211> 363					•	
<212> DNA						
<213> Mou	se					
<400> 11	hash sanata	taggggggg	ttagtggagg	ct cas cast a	ccccanactc	60
	tggtggagtc					
	cctctggatt					120
ccagagaagg	ggctggagtg	ggtcgcatat	attagtagtg	gcagtattac	catctactat	180
gcagacacag	tgaagggccg	attcaccgtc	tccagagaca	atcccaagag	caccctgttc	240
ctgcaaatga	ccagtctaag	gtctgaggac	acggccatgt	attactgtgc	aagagacgac	300
tacggtagta	gcgggtggta	cttcgatgtc	tggggcgcag	ggaccacggt	caccgtctcc	360
tca						363
				•		
<210> 12	•					
<211> 350						
<212> DNA						
<213> Mous	se					
•			•			
<400> 12				•		
gacattgtga	tgtcacagtc	tccatcctcc	ctggctgtgt	cagcaggaga	gaaggtcact	60
atgagetgea	aatccagtca	gagtctgctc	aacagtagaa	cccgaaagaa	ctacttggct	120
tggtaccagc	agaaaccagg	gcagtctcct	aaactgctga	tctactgġgc	atccactagg	180
gaatctgggg	tccctgatcg	cttcacaggc	agtggatctg	ggacagattt	cacyctcacc	240
atcagcagtg	tgcaggctga	agacctggca	gtttattact	gcacgcaatc	ttataatctg	300
	~======================================	annataan	atassharaa	ctastactac		350

			•			•
<210> 13						
<211> 410						
<212> DNA						•
<213> Mous	se	•	•	•		
<400> 13	h con consta	tggacctgaa	ctagtgaaga	ctagaacttc	aqtqaaqata	60
		ctcactcact				120
						180
		gattggatat				240
		ggccacattt				300
		atctgaagac		•		
		ggactactgg			cgtctcctca	360
gccaaaacga	cacccccatc	tgtctatcca	ctggccccta	ctagtgctgc		410
<210> 14						
<211> 317			:			~ _
<212> DNA						
<213> Mous	ie					
						•
•						
<400> 14 gaaaatgtgc	tcacccagtc	tecageaate	atgtctgcat	ctccagggga	aaaggtcacc	60
atgacctgca	gggccagctc	aagtgtaagt	tcccgttact	tgcactggta	ccagcagaag	120
tcaggtgcct	cccccaaact	ctggatttat	agcacatcca	acttggcttc	tggagtccct	180
gctcgcttca	gtggcagtgg	gtctgggacc	tcttactctc	tcacaatcag	cagtgtggag	240
gctgaagatg	ctgccactta	ttactgccag	caatacagtg	gttacccgtg	gacgttcggt	300
ggaggcacca	agctgga				•	317
•						
<210> 15			•			
<211> 374						•
<212> DNA					•	
<213> Mou	se					•

<400> 15
gaagtgaagc ttgaggagtc tggaggaggc ttggtgcaac ctggaggatc catgagactc 60

8

tcctgtgtt	cctctggatt	cactttcagt	aactactgga	tgaactgggt	ccgccagtct	120
ccagagaag	ggcttgagtg	ggttgctgaa	attagattga	catctaataa	ttttgcaaca	180
cattatgcgg	agtctgtgaa	agggaggttc	accatctcaa	gagatgattc	caaaagtagt	240
gtctacctg	: aaatgaacaa	cttaagagct	gaagacactg	gcatttatta	ctgtaccagg	300
ccttactac	gtggtaggtt	cttctactgg	tacttcgatg	tctggggcgc	agggaccacg	360
gtcaccgtct	cctc			•		374
-210- 16						
<210> 16 <211> 318					•	
<211> 318					• •	*
<213> Mou		•				
(213)						
<400> 16						
	tcacccagtc	tccaaccacc	atggctgcat	ctcccgggga	gaagatcact	60
atcacctgca	gtgccagctc	aagtataagt	tccaattact	tgcattggta	tcagcagaag	120
ccaggattct	cccctaaact	cttgatttat	aggącatcca	atctggcttc	tggagtccca	180
gttcgcttca	gtggcagtgg	gtctgggacc	tcttactctc	tcacaattgg	caccatggag	240
gctgaagatg	ttgccactta	ctactgccag	cagggtaata	gtataccatt	cacgttcggc	300
tcggggacaa	agctcgag					318
<210> 17						
<211> 134						
<212> PRT						
<213> Art	ificial Seque	ence				
				•		
<220>					,	
<223> ant:	i-k99 heavy o	hain varia	ble region			
<400> 17	·					
Ala Thr Sei	Glu Val Glr	Leu Val G	lu Ser Gly	Gly Gly Phe	Val Lys	
1	5		10		15	
Pro Gly Gly	Ser Leu Lys 20	Leu Ser C	-	Ser Gly Phe 30	Thr Phe	

PCT/EP2004/001427

9

Ser Asp Tyr Phe Met Ser Trp Ile Arg Gln Thr Pro Glu Lys Arg Leu . 35 . 40 45

Glu Trp Val Ala Thr Ile Asn Asn Gly Gly Ser His Thr Tyr Cys Ser 50 55 60

Asp Asn Val Lys Gly Arg Phe Thr Thr Phe Arg Asp Asn Val Lys Asn.

Thr Leu Tyr Leu Gln Met Ser Ser Leu Asn Phe Glu Asp Thr Ala Met

Tyr Tyr Cys Ala Arg Ala Tyr Tyr Arg Phe Asp Val Arg Ala Trp Phe 100 105 110

Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Thr Ala Lys Thr 115 120 125

Thr Pro Pro Ser Val Tyr 130

<210> 18

<211> 229

<212> PRT

<213> Artificial Sequence

<220>

<223> anti-k99 light chain

<220>

<221> MISC\_FEATURE

<222> (225)..(226)

<223> X at positions 225 and 226 designates an unknown amino acid

<400> 18

Ala Thr Ser Asp Ile Leu Leu Thr Gln Ser Pro Ala Ile Leu Ser Met
1 5 10 15

Ile Pro Arg Gln Arg Val Ser Phe Ser Cys Arg Ala Ser Gln Ile Ile

10

Gly Thr Thr Ile His Trp Ser Gln Gln Arg Thr Asp Gly Ser Pro Arg 35 40 45

Leu Leu Ile Gln Cys Ala Ser Glu Ser Ile Ser Gly Ile Pro Ser Arg 50 55 60

Phe Ser Gly Thr Gly Ser Gly Thr Asp Phe Thr Leu Asn Phe Asn Ser 65 70 75 80

Val Glu Ser Glu Tyr Ile Thr Asp Tyr Tyr Cys Gln Gln Ser Asn Thr 85 90 95

Trp Pro Thr Tyr Pro Phe Gly Gly Thr Lys Leu Glu Ile Lys Arg
100 105 110

Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln 115 120 125

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr 130 135 140

Pro Lys Asp Ile Asn Val Lys Trp. Lys Ile Asp Gly Ser Glu Arg Gln 145 150 155 160

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr 165 170 175

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
180 185 190

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro 195 200 205

Ile Val Lys Ser Phe Asn Arg Asn Glu Cys Ser Glu Lys Asp Glu Leu 210 215 220

Xaa Xaa Thr Gly Phe 225

<210> 19 ·

<211> 29

<212> DNA

<213> Artificial Sequence

31

27

28

11 <220> <223> Primer MLALT2 <400> 19 accatggatt ttcaagtgca gattttcag — <210> 20 ------<211> 31 <212> DNA <213> Artificial Sequence <220> <223> Primer MLALT3 <400> 20 caccatggag wcacakwctc agtgtctttr t <210> 21 <211> 27 <212> DNA <213> Artificial Sequence <220> <223> Primer MLALT4 <400> 21 caccatgkcc ccwrctcagy tyctkgt <210> 22 <211> 28 <212> DNA ' <213> Artificial Sequence <220> <223> Primer MLALT5 <400> 22

caccatgaag ttgcctgtta ggctgttg

<223> Primer MH1

<400> 23
atatccacca tggratgsag ctgkgtmats ctctt

35

35

30

<210> 24

<211> 35

<220>

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer MH2

<400> 24 atatccacca tgracttcgg gytgagctkg gtttt

2 23 31 3 3 3

<210> 25

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer 33615

<400> 25 gaagatctag acttactatg cagcatcage

<210> 26

<211> 27

<212> DNA

<213> Artificial Sequence

PCT/EP2004/001427

<212> DNA

<213> Artificial Sequence

<220> <223> Primer MVG1R <400> 26 27 ggcagcacta gtaggggcca gtggata <210> 27 <211> 35 <212> DNA <213> Artificial Sequence <220> <223> Primer MVG2R <400> 27 35 gaggarccac tagtatctcc acacmcaggg gccag <210> 28 <211> 19 <212> PRT <213> Artificial Sequence <220> <223> ER transit peptide <400> 28 Met Arg Val Leu Leu Val Ala Leu Ala Leu Leu Ala Leu Ala Ser 10 Ala Thr Ser <210> 29 <211> 24

14 <220> <223> Primer <400> 29 acgcgtcgat catccaggtg caac <210> 30

24

25

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 30

actagtggcg ctcgcagcga ga 22

<210> 31

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 31

accggttctg ttctgcacaa agtgt

<210> 32

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 32

acgcgtttgt acccctggat t 21

PCT/EP2004/001427

15

<210> 33 ·

WO 2004/074491

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer .

<400> 33

acgcgtttgc atgcctgcag tg

<210> 34

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 34

agtccaacgg tggagcggaa ct

<210> 35

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> ER retention signal

<400> 35

Ser Glu Lys Asp Glu Leu
1 5

<210> 36

<211> 30

<212> DNA

22

22

	1	6		
<213>	Artificial Sequence			
<220>				
<223>	Oligonucleotide			
<400> agcttg	36 ggatc cactagtacc ggtacgcgtg		•	3
<210>	37			
<211>	30			
<212>	DNA			
<213>	Artificial Sequence			
<220>				
<223>	Oligonucleotide			
<400> aattca	37 cgcg taccggtact agtggatcca		~~	30
<210>	38			
<211>	72			
<212>	DNA		•	
<213>	Artificial Sequence			
<220>	•			
<223>	Oligonucleotide	•		
<400> catgtga	38 aggo cacccacaag acctecacet co	ccaatcgt gaagagette	aaccgcaacg 6	50
agtgct	gata ga		7	72
<210>	39			
<211>	72		÷	
<212>	DNA			
<213>	Artificial Sequence			

<220>

	. 17			•	
<223>	Oligonucleotide				
<400> ccggtc	39 tatc agcactcgtt gcggttgaag ctcttcacga	ttggggaggt	ggaggtcttg	-	60
tgggtg	gcct ca			_	72
<210>	40				
<211>	36				
<212>	DNA				
<213>	Artificial Sequence				
<220>					
<223>	Oligonucleotide				
<400> agctta	40 egcg tggatecact agtgageteg gtaceg			-	36 -
<210>	41				
<211>	36				
<212 <sup>.</sup> >	DNA .				
<213>	Artificial Sequence				
	,				
<220>					
<223>	Oligonucleotide				
<400> aattcgg	41 gtac cgagctcact agtggatcca cgcgta				36
<210>	42				
<211>	54		,		
<212>	DNA .		•		
<213>	Artificial Sequence				
	.*				
<220>					
<223>	Oligonucleotide				
<400>	42	agotaccoss	ttca		54

18 <210> 43 <211> 54 <212> DNA <213> Artificial Sequence <220> <223> Oligonucleotide <400> 43 agettgaatt eggtacettg ageteetate acagetegte etteteggae ttge <210> 44 <211> 23 <212> DNA <213> Artificial Sequence <220> <223> Primer IIA <400> 44 aagcagtggt atcaacgcag agt 23 <210> 45 <211> 30 <212> DNA <213> Artificial Sequence <220> <223> Primer SMART IIA <400> 45 aagcagtggt atcaacgcag agtacgcggg 30 <210> 46 <211> 22 <212> DNA

<213> Artificial Sequence

<220>		
<223>	Primer K99HC-3'	
<400> aagtaga	46 acag atggggtgt cg	22
<210>	47	•
<211>	27	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer K88_746_VAR_H5'	
<400> gccacta	47	27
<210>	48	
<211>	26	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer K88_1744_VAR_H5'	
<400> gccacta	48 agtg atgtgcagct ggtgga	26
	49	
<210>	;	
<211>	27	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer K88_3641_VAR_H5'	
<400>. gccact	49 agtg aggtccagct gcagcag	27

20

<210>	50				
<211>	26 =				
<212>	DNA				
<213>	Artificial Sequence				
<220>					
<223>	Primer K88_746_VAR_L5	•			
<400> ccactag	50 gtga aattgtgctc acccag				2
<210>	51				
<211>	28				
<212>	DNA -				
<213>	Artificial Sequence	•			
•					•
<220>	•	*			
<223>	Primer K88_746_VAR_L3				
<400> tatcto	51 cgag ctttgtcccc gagccgaa				2
<210>	52 .				
<211>	27				
<212>	DNA		•		
<213>	Artificial Sequence	•			
	,				
<220>			·	-	
<223>	Primer K88_3641_VAR_L5				
<400>	52 agtg aaaatgtgct cacccag				2
,			•		
:210>	53				

<211> 28 <212> DNA

PCT/EP2004/001427

	21	
<213>	Artificial Sequence	
<220>		
<223>	Primer K88_3641_VAR_L3	
<400> ttatct	53 cgag cttggtgcct ccaccgaa	2
<210>	54	
<211>	27	
<212>	DNA	
<213>	Artificial Sequence	
	·	
<220>	$\cdot$	
<223>	Primer K88_1744_VAR_L5	
<400>	54 agtg acattgtgat gtcacag	2
500000		
<210>	55 ·	
<211>	30	
<212>	DNA.	
<213>	Artificial Sequence	
<220>	·	
<223>	Primer K88_1744_VAR_L3	
<400>	55 cgag cttggtccca gcaccgaacg	3
00		
<210>	56	
<211>	5 .	
<212>	PRT	
<213>	Artificial Sequence	
	•	

<220>

<223> Light Chain Variable Domain Motif

<400> 56

Lys Leu Glu Ile Lys 1 5

<210> 57

<211> 972

<212> DNA

<213> Artificial Sequence

<220>

<223> Consensus nucleotide sequence of murine IgG1 Heavy Chain <400> 57 gecaaaacga caceeccate tgtetateca etggeceetg gatetgetge ecaaactaae 60 tecatggtga ccetgggatg cetggteaag ggetatttee etgageeagt gaeagtgaee 120 tggaactctg gatecetgte cageggtgtg cacacettee cagetgteet geagtetgae 180 ctctacactc tgagcagetc agtgactgtc cectecagea cetggeccag egagacegte . 240 acctgcaacg ttgcccaccc ggccagcagc accaaggtgg acaagaaaat tgtgcccagg 300 gattgtggtt gtaagccttg catatgtaca gtcccagaag tatcatctgt cttcatcttc 360 cccccaaagc ccaaggatgt gctcaccatt actctgactc ctaaggtcac gtgtgttgtg 420 gtagacatca gcaaggatga teeegaggte eagtteaget ggtttgtaga tgatgtggag 480 gtgcacacag ctcagacgca accccgggag gagcagttca acagcacttt ccgctcagtc agtgaacttc ccatcatgca ccaggactgg ctcaatggca aggagttcaa atgcagggta 600 aacagtgcag ctttccctgc ccccatcgag aaaaccatct ccaaaaccaa aggcagaccg 660 aaggeteeae aggtgtacae cattecaeet eecaaggage agatggeeaa ggataaagte 720 agtotgacot goatgataac agacttotto cotgaagaca ttactgtgga gtggcagtgg 780 aatgggcage cageggagaa etacaagaae aeteageeea teatggacae agatggetet 840 tacttcgtct acagcaagct caatgtgcag aagagcaact gggaggcagg aaatactttc 900 acctgetetg tgttacatga gggeetgeac aaccaccata etgagaagag ecteteceae 960 972 tctcctggta aa

<210> 58

<211> 39

<212> DNA

23 <213> Artificial Sequence <220> <223> Primer for Human CH3 <400> 58 39 gaattaagga tccaaagcca aaggccagcc ccgcgaacc <210> 59 <211> '38 <212> DNA <213> Artificial Sequence <220> <223> Primer for Human CH3 <400> 59 38 tttattgatt attgctcgag tttacccgga gacaggga <210> 60 <211> 42 <212> DNA <213> Artificial Sequence <220> <223> Primer for Murine CH3 <400> 60 42 aattaatgaa ttaaggatcc aagaccaagg gccgcccgaa gg <210> 61 <211> 42 <212> DNA <213> Artificial Sequence

<220>

<223> Primer for Murine CH3

24

	24	
<400> tttatt	61 gatt attgctcgag cttgcccggg gagtgagaga gg	42
<210>	62	
<211'>	38	
<212>	DNA	
<213>	Artificial Sequence	
	•	
<220>		
<223>	Primer for Bovine CH3	
<400> aattaa	62 tgaa ttaaggatcc cgcaccaaag gccctgcc	38
<210>	63	
<211>	40	•
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer for Bovine CH3	
<400>	63 gatt attgetegag ettgeeggeg gaettggagg	40
cccacc		
<210>	64	•
<211>	42	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Primer for Bovine CH2CH3	٠
<400> ttaatga	64 Batt aaggateegg eggeeeatet gtgtteatet te	42
<210>	65	

PCT/EP2004/001427

25

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for Bovine CH2CH3

<400> 65 tttattgatt attgctcgag cttgccggcg gacttggagg

40

<210> 66

<211> 230

<212> PRT

<213> Artificial Sequence

<220>

<223> Consensus amino acid sequence of IgG Fc sequences

<400> 66

His Cys Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe 1 5 10 15

Ile Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro 20 25 30

Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val 35 40 45 .

Gln Pro Val Phe Ser Trp Tyr Val Asp Gly Val Glu Val His Thr Ala
50 55 60

Lys Met Leu Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg 65 70 75 80

Val Val Ser Val Leu Pro Ile Gln His Gln Asp Trp Leu Asn Gly Lys 85 90 95

Glu Phe Lys Cys Lys Val Asn Asn Lys Ala Leu Pro Ala Pro Ile Glu 100 105 110

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Glu Pro Gln Val

26

Tyr Val Leu Pro Pro Pro Arg Glu Glu Leu Ser Lys Asn Asp Thr Val 130 135 140

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Pro Asp Ile Ala Val 145 150 155 160

Glu Trp Gln Ser Asn Gly Gln Pro Glu Pro Glu Asn Lys Tyr Lys Thr 165 170 175

Thr Pro Pro Gln Leu Asp Ser Asp Gly Ser Tyr Phe Leu Tyr Ser Lys 180 185 190

Leu Ser Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Thr Phe Thr Cys 195 200 205

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu 210 215 220

Ser Lys Ser Pro Gly Lys 225 230

<210> 67

<211> 471

<212> PRT

<213> Mouse

<400> 67

Thr Met Arg Val Leu Leu Val Ala Leu Ala Leu Leu Ala Leu Ala Ala 1 5 10 15

Ser Ala Thr Ser Asp Val Gln Leu Val Glu Ser Gly Gly Leu Val 20 25 30

Gln Pro Gly Gly Ser Arg Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr 35 40 45

Phe Ser Ser Phe Ala Met His Trp Val Arg Gln Ala Pro Glu Lys Gly 50 55 60

Leu Glu Trp Val Ala Tyr Ile Ser Ser Gly Ser Ile Thr Ile Tyr Tyr 65 70 75 80

Ala Asp Thr Val Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Pro Lys 85 90 95

Ser	Thr	Leu	Phe 100	Leu	Gln	Met	Thr	Ser 105	Leu	Arg	Ser	Glu	110	Thr	Ala
Met	Tyr	Tyr 115	Cys 	Ala	Arg	Asp	Asp 120	Tyr 	Gly	Ser	Ser	Gly 125	Trp	Tyr	Phe
Asp	Val 130	Trp	Gly	Ala	Gly	Thr 135	Thr	Val	Thr	Val	Ser 140	Ser	Ala	Lys	Thr
Thr 145	Pro	Pro	Ser	Val	Tyr 150	Pro	Leu	Ala	Pro	Gly 155	Ser	Ala	Ala	Gln	Thr 160
Asn	Ser	Met	Val	Thr 165	Leu	Gly	Суз	Leu	Val 170	Lys	Gly	Tyr	Phe	Pro 175	Glu
Pro	Val	Thr	Val 180	Thr	Trp	Asn	Ser	Gly 185	Ser	Leu	Ser	Ser	Gly 190	Val	His
Thr	Phe	Pro 195	Ala	Val	Leu	Gln	Ser 200	Asp	Leu	Tyr	Thr	Leu 205	Ser	Ser	Ser
Val	Thr 210	Val	Pro	Ser	Ser	Thr 215	Trp	Pro	Ser	Glu	Thr 220	Val	Thr	Cys	Asn
Val 225	Ala	His	Pro	Ala	Ser 230	Ser	Thr	Lys	Val	Asp 235	Lys	Lys	Ile	Val	Pro 240
Arg	Asp	Cys	Gly	Cys 245	Lys	Pro	Cys	Ile	Cys 250	Thr	Val	Pro	Glu	Val 255	Ser
Ser	Val	Phe	Ile 260	Phe	Pro	Pro	Lys	Pro 265		Asp	Val	Leu	Thr 270	Ile	Thr
Leu	Thr	Pro 275	ГÀз	Val	Thr	Cys	Val 280	Val	Val	Asp	Ile	Ser 285	Lys	Asp	Asp
Pro	Glu 290	Val	Gln	Phe		Trp 295	Phe	Val	Asp	Asp	Val 300	Glu	Val	His	Thr
Ala 305	Gln	Thr	Gln	Pro	Arg 310	Glu	Glu	Gln	Phe	Asn 315	Ser	Thr	Phe	Arg	Ser 320
Val	Ser	Glu	Leu	Pro 325	Ile	Met	His	Gln	Asp 330	Trp	Leu	Asn	Gly	Lys 335	Glu

28

Phe Lys Cys Arg Val Asn Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys 340 345 350

Thr Ile Ser Lys Thr Lys Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr = 355 360 365 --

Ile Pro Pro Pro Lys Glu Gln Met Ala Lys Asp Lys Val Ser Leu Thr 370 375 380

Cys Met Ile Thr Asp Phe Phe Pro Glu Asp Ile Thr Val Glu Trp Gln 385 390 395 . 400

Trp Asn Gly Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln Pro Ile Met
405 415

Asp Thr Asp Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn Val Gln Lys
420 425 430

Ser Asn Trp Glu Ala Gly Asn Thr Phe Thr Cys Ser Val Leu His Glu 435 440 445

Gly Leu His Asn His His Thr Glu Lys Ser Leu Ser His Ser Pro Gly
450 . 455 . 460

Lys Ser Glu Lys Asp Glu Leu 465 470

<210> 68

<211> 244

<212> PRT

<213> Mouse

<400> 68

Met Arg Val Leu Leu Val Ala Leu Ala Leu Leu Ala Leu Ala Ser 1 5 10 15

Ala Thr Ser Asp Ile Val Met Ser Gln Ser Pro Ser Ser Leu Ala Val 20 25 30

Ser Ala Gly Glu Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser Leu

Leu Asn Ser Arg Thr Arg Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys 50 55 60

Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu 65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe 85 90 95

Thr Leu Thr Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Val Tyr Tyr 100 105 110

Cys Thr Gln Ser Tyr Asn Leu Leu Thr Phe Gly Ala Gly Thr Lys Leu . 115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
165 170 175

Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser 180. - 185 190

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr 210 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys Ser Glu 225 230 235 240

Lys Asp Glu Leu

<210> 69

<211> 469

<212> PRT

<213> Mouse

<400> 69

30

Met Arg Val Leu Leu Val Ala Leu Ala Leu Leu Ala Leu Ala Ser 1 5 10 15

Ala Thr Ser Glu Val Gln-Leu Gln Gln Ser Gly Pro Glu Leu Val Lys
20 - 25 30

Thr Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Asp Tyr Ser Leu 35 40 45

Thr Asp Tyr Tyr Met His Trp Val Lys Gln Ser His Gly Glu Ser Leu 50 55 60

Glu Trp Ile Gly Tyr Ile Asn Phe Tyr Asn Gly Ala Thr Asn Tyr Asn 65 70 - 75 80

Gln Lys Phe Lys Gly Lys Ala Thr Phe Thr Val Asp Thr Ser Ser Ser 90 95

Thr Val Tyr Met Gln Phe Asn Ser Leu Thr Ser Glu Asp Ser Ala Val

Tyr Tyr Cys Val Arg Glu Ala Leu Leu Arg Asn Tyr Ala Met Asp Tyr 115 120 125

Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr Pro

Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser 145 150 155 160

Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro Val

Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr Phe 180 185 190

Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Val Thr 195 200 205

Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val Ala 210 215 . 220

His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg Asp 225 230 235 240

Cys Gly Cys Lys Pro Cys Ile Cys Thr Val Pro Glu Val Ser Ser Val
245 250 255

Phe Ile Phe Pro Pro Lys Pro Lys Asp Val Leu Thr Ile Thr Leu Thr 260 265 270

Pro Lys Val Thr Cys Val Val Val Asp Ile Ser Lys Asp Asp Pro Glu 275 280 285

Val Gln Phe Ser Trp Phe Val Asp Asp Val Glu Val His Thr Ala Gln 290 295 300

Thr Gln Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Ser Val Ser 305 310 315 320

Glu Leu Pro Ile Met His Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys 325 330 335

Cys Arg Val Asn Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile 340 345 350

Ser Lys Thr Lys Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro 355 360 365

Pro Pro Lys Glu Gln Met Ala Lys Asp Lys Val Ser Leu Thr Cys Met 370 380

Ile Thr Asp Phe Phe Pro Glu Asp Ile Thr Val Glu Trp Gln Trp Asn 385 390 395 400

Gly Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr 405 410 415

Asp Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn 420 425 430

Trp Glu Ala Gly Asn Thr Phe Thr Cys Ser Val Leu His Glu Gly Leu
435 440 445

His Asn His His Thr Glu Lys Ser Leu Ser His Ser Pro Gly Lys Ser 450 455 460

Glu Lys Asp Glu Leu 465

<210> 70

<211> 240

32

<212> PRT

<213> mouse

<400> 70

Met Arg Val Leu Val Ala Leu Ala Leu Leu Ala Leu Ala Ser 1 5 10 15

Ala Thr Ser Glu Asn Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala 20 25 30

Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val 35 40 45

Ser Ser Arg Tyr Leu His Trp Tyr Gln Gln Lys Ser Gly Ala Ser Pro 50 55

Lys Leu Trp Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ala 65 70 75 80

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser 85 90 95

Ser Val Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser 100 105 110

Gly Tyr Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg 115 120 125

Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln 130 135 140

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr 145 150 155 160

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
165 170 175

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr 180 185 190

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg 195 200 205

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro 210 215 220 Ile Val Lys Ser Phe Asn Arg Asn Glu Cys Ser Glu Lys Asp Glu Leu 225 230 235 240

<210> 71

<211> 474

<212> PRT

<213> Mouse

<400> 71

Met Arg Val Leu Leu Val Ala Leu Ala Leu Leu Ala Leu Ala Ser 1 5 10 15

Ala Thr Ser Glu Val Lys Leu Glu Glu Ser Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Met Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe 35 40 45 --

Ser Asn Tyr Trp Met Asn Trp Val Arg Gln Ser Pro Glu Lys Gly Leu
50 55 60

Glu Trp Val Ala Glu Ile Arg Leu Thr Ser Asn Asn Phe Ala Thr His 65 70 75 80

Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser 85 90 95

Lys Ser Ser Val Tyr Leu Gln Met Asn Asn Leu Arg Ala Glu Asp Thr 100 105 110

Gly Ile Tyr Tyr Cys Thr Arg Pro Tyr Tyr Gly Gly Arg Phe Phe Tyr
115 120 125

Trp Tyr Phe Asp Val Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser 130 135 140

Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala 145 . 150 . 155 . 160

Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr 165 170 175

34

Phe Pro Glu Pro Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser 130 185 190

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu 195 200 205

Ser Ser Ser Val Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val 210 220

Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys 225 230 235 240

Ile Val Pro Arg Asp Cys Gly Cys Lys Pro Cys Ile Cys Thr Val Pro
245 250 255

Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys Pro Lys Asp Val Leu 260 265 270

Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val Val Val Asp Ile Ser 275 280 285

Lys Asp Asp Pro Glu Val Gln Phe Ser Trp Phe Val Asp Asp Val Glu 290 295 300

Val His Thr Ala Gln Thr Gln Pro Arg Glu Glu Gln Phe Asn Ser Thr 305 310 315 320

Phe Arg Ser Val Ser Glu Leu Pro Ile Met His Gln Asp Trp Leu Asn 325 330 330

Gly Lys Glu Phe Lys Cys Arg Val Asn Ser Ala Ala Phe Pro Ala Pro 340 345 . 350

Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Arg Pro Lys Ala Pro Gln 355 360 365

Val Tyr Thr Ile Pro Pro Lys Glu Gln Met Ala Lys Asp Lys Val 370 375 380

Ser Leu Thr Cys Met Ile Thr Asp Phe Phe Pro Glu Asp Ile Thr Val 385 390 395 400

Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln
405 410 415

Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn 420 425 430

Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr Phe Thr Cys Ser Val
435
440
445

Leu His Glu Gly Leu His Asn His His Thr Glu Lys Ser Leu Ser His
450
455
460

Ser Pro Gly Lys Ser Glu Lys Asp Glu Leu 465 470

<210> 72

<211> 240

<212> PRT

<213> Mouse

<400> 72

Met Arg Val Leu Leu Val Ala Leu Ala Leu Leu Ala Leu Ala Ser 1 5 10 15

Ala Thr Ser Glu Ile Val Leu Thr Gln Ser Pro Thr Thr Met Ala Ala 20 25 30 ---

Ser Pro Gly Glu Lyś Ile Thr Ile Thr Cys Ser Ala Ser Ser Ile 35 40 45

Ser Ser Asn Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Phe Ser Pro 50 60

Lys Leu Leu Ile Tyr Arg Thr Ser Asn Leu Ala Ser Gly Val Pro Val 65 70 75 80

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Gly
85 90 95

Thr Met Glu Ala Glu Asp Val Ala Thr Tyr Tyr Cys Gln Gln Gly Asn 100 105 110

Ser Ile Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg 115 120 125

Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln
130 140

36

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr 145 150 155 160

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
165 170 175

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr 180 185 190

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg 195 200 205

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro 210 220

Ile Val Lys Ser Phe Asn Arg Asn Glu Cys Ser Glu Lys Asp Glu Leu 225 230 235 240

<210> 73

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicted N-terminal sequence of 36/41 VL

<400> 73

Glu Asn Val Leu Thr Gln Ser Pro Ala Ile 1 5 10

<210> 74

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Obtained N-terminal sequence of 36/41 VL

<400> 74

Val Arg Leu Thr Gln Ser Pro Ala Ile 1 5

```
<210> 75
    <211> 10
    <212> PRT
~~~<213> Artificial Sequence -- --
   <220>
   <223> Predicted N-terminal sequence of 36/41 VH
   <400> 75
   Glu Val Gln Leu Gln Gln Ser Gly Pro Glu
  <210> 76
   <211> 10
   <212> PRT ·
   <213> Artificial Sequence
   <220>
   <223> Obtained N-terminal sequence of 36/41 VH
   <400> 76
   Glu Val Gln Leu Gln Gln Ser Gly Pro Glu
   <210> 77
  <211> 10
   <212> PRT
   <213> Artificial Sequence
  <220>
  <223> Predicted N-terminal sequence of 36/41 derived VL produced in Cor
  <400> 77
  Glu Asn Val Leu Thr Gln Ser Pro Ala Ile
```

38

```
<210> 78
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Obtained N-terminal sequence of 36/41 derived VL produced in Corn
 <400> 78
 Leu Val Leu Thr Gln Ser Pro Ala Ile
               5
 <210> 79 ·
 <211> 10
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Predicted N-terminal sequence of 36/41 derived VH produced in Cor
<400> 79
Glu Val Gln Leu Gln Gln Ser Gly Pro Glu
<210> 80
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Obtained N-terminal sequence of 36/41 derived VH produced in Corn
<220>
<221> MISC_FEATURE
<222> (2)..(2)
```

<223> X at position 2 denotes that this residue was not obtained during sequencing

<400> 80

Glu Xaa Gln Leu Gln Gln Ser Gly Pro Glu 1 5 10